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ABSTRACT

Decision-making strategies have traditionally been classified as either prescriptive/normative or descriptive/behavioral in nature. Proponents of prescriptive/normative decision-making models attempt to develop procedures for making optimal decisions while proponents of the descriptive/behavioral models look for a choice that meets a minimal set of requirements rather than an optimal set. This study compared an Expected Utility model (prescriptive/normative) and an Elimination by Aspects (descriptive/behavioral) model of career decision making. Both models were also compared with a "model-free" choice situation in which the decision-making strategy was not explicitly dictated by experimental procedure. The three decision-making strategies were compared in terms of quality of choices, types of careers chosen, and post-decision satisfaction. College students (N=101) completed the Work Values Inventory and participated in activities which involved operationalization of the three decision-making models. The results suggest that use of the Expected Utility model produced the "best quality" decisions for subjects. (Author/NB)

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Expected Utility and Sequential Elimination Models of Career Decision Making

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EXPECTED UTILITY AND SEQUENTIAL ELIMINATION MODELS OF CAREER DECISION MAKING

ABSTRACT

This study compared an Expected Utility model and an Elimination by Aspects (sequential elimination) model of career decision making. Both models were also compared with a "model-free" choice situation in which the decision-making strategy was not explicitly dictated by experimental procedure. The three decision-making strategies were compared in terms of (a) **quality of choices** -- defined in terms of the expected utility values of the career chosen, (b) **types of careers chosen**, and (c) **post-decisional satisfaction**. In general, the expected utility model resulted in the "best quality" decisions for subjects.

Expected Utility and Sequential Elimination Models of Career Decision Making

Decision making is a process inherent in the human condition. Decision theorists of all disciplines attempt to describe in an orderly way what variables influence choices (Edwards & Tversky, 1967). The single most important factor accounting for the differences among the various decision theorists is the decision model assumed to be implemented by the decision maker.

Decision-making strategies have traditionally been classified as either prescriptive/normative or descriptive/behavioral in nature (Janis & Mann, 1977; Mitchell & Krumboltz, 1984; Pitz & Harren, 1980; Tyler, 1969). Proponents of prescriptive/normative decision-making models attempt to develop procedures for making optimal decisions, i.e., decisions which meet a set of axioms that a completely "rational" decision maker would consider desirable. The rational decision maker, often called the "economic man," operates on the basis of deliberate and knowledgeable reasoning about the possible outcomes of his or her actions. The final choice is the one that will bring the rational decision maker maximum gain. In the case of risky choices (i.e., where outcomes are associated with different probabilities), people act so as to maximize expected utility.

The expected utility of a particular choice or action is

computed by taking for each possible outcome or course of action or decision a number representing the subjective value or payoff of the choice and a number representing the probability of obtaining that payoff (referred to as its "strength of return"), multiplying the two together, and then adding across all possible outcomes of that course of action.

In spite of the apparent appeal of the Expected Utility model as a framework for processing decision-making situations (within the field of decision theory, it is held as the rational standard against which competing models are to be compared), its validity has been questioned theoretically, empirically and practically. Leading those who challenge the validity of the rational (optimizing) model of decision making has been Herbert Simon (1955, 1957, 1976), who has noted that human beings do not have the "wits to maximize" (1976, p. 28) -- meaning that determining all the potential outcomes of all feasible courses of action is an impossible demand on a person's resources and mental capabilities (Slovic & Lichtenstein, 1971).

The descriptive inadequacy of the Expected Utility model has been widely documented. Tversky and his associates (Kahneman & Tversky, 1979, 1984; Tversky, 1969, 1972, 1975; Tversky & Kahneman, 1974, 1981; Tversky & Sattath, 1979) have provided ample evidence suggesting that the axioms of the Expected Utility model are often violated. Theoretical and empirical considerations aside, Janis and Mann (1977) have suggested that even if it were humanly possible, the process of collecting and examinaing the huge amount of information required is costly in time, effort and money. However, in spite of the theoretical,

empirical, and practical difficulties associated with the model, it is still considered the best available strategy for decision making. Elster (1979) specifically has suggested that social and behavioral scientists should always be guided by a postulate of rationality, even when studying areas in which this postulate may end up being violated.

Proponents of descriptive/behavioral models of decision making disagree with the classical view of the decision maker as an "economic man" operating according to a completely rational and optimizing strategy. In contrast to the prescriptive or behavioral model, the descriptive model of decision making suggests that people act/choose so as to satisfice, rather than to optimize; that is, decision makers look for a choice that is "good enough" rather than the best, a choice that meets a minimal set of requirements rather than an optimal set (Simon, 1955, 1957, 1976).

The Elimination by Aspects (EBA) model of decision making proposed by Tversky and his associates (Tversky, 1972, 1975; Tversky & Kahneman, 1981) is an intriguing and appealing version of a satisficing model. EBA is a probabilistic process model based on the successive elimination of choices. Within the model, each choice alternative is viewed as a collection of measureable aspects. In each state of the process, an aspect is selected with a priority that is a function of its relative importance to the decision maker. The selection of an aspect eliminates all alternatives not satisfying the particular requirements, and the process continues until only a few (or one) alternatives remain.

Five major career decision-making models that arise from classical decision theory (expected utility theory) have been proposed. These models have focused on issues such as information seeking (Clarke, Gelatt & Levine, 1965; Gelatt, 1962), balancing input costs and output gains in order to maximize net gains (Kaldor & Zytowski, 1969), work-related values (Katz, 1963, 1966), conflict and stress (Janis & Mann, 1977), and the interactions of genetic, environment and learning influences (Krumboltz & Baker, 1973; Krumboltz & Hamel, 1977). Although only the Kaldor and Zytowski model is mathematical in nature, all five predict with mathematical certainty that if specific procedures are followed, the resulting decision will be the one that maximizes expected gains for the decision maker. In all five models, the decision maker is required to consider the entire range of options, assign utility values to each outcome, estimate the likelihood that the outcome will occur if it is pursued, and choose the outcome with the highest expected utility value (Mitchell & Krumboltz, 1984).

Developments within descriptive/behavioral career decision models have been rather limited in number and in scope. The few behavioral strategies that have been associated with the process of career choice have not been studied within an experimental framework, but rather offered as decision-making strategies that are justified within a context of anecdotal data. The simplest variant of a descriptive model is the "single-rule strategy" (Janis & Mann, 1977). Examples of single decision rules include moral or ethical rules (Bedau, 1979; Schwartz, 1970) such as choosing a career following the wishes of one's parents because

one should "honor thy father and mother" (Mitchell & Krumboltz, 1984), or "practical" rules such as choosing to "do what I did the last time because it worked" (or the opposite, if it didn't) (Janis & Mann, 1977). A third type of single-rule strategy can be described as "choosing by consensus," which is exemplified when a career is selected because it is recommended by most people whose advice the decision maker sought.

With the above as background, the purpose of this study was to compare the Expected Utility (prescriptive/normative) and Elimination by Aspects (sequential elimination) (descriptive/behavioral) models as applied to career decision making. Both models were also compared to a "model-free" choice situation in which the decision-making strategy followed was not explicitly dictated by experimental procedure. The three decision-making strategies were compared in terms of (a) quality of choices -- defined in terms of the expected utilty values of the career chosen, (b) types of careers chosen, and (c) post-decisional satisfaction.

Method

Subjects

One hundred one students (42 male, 59 female) enrolled in introductory psychology classes at a major midwestern university served as subjects. Thirty-three percent were freshmen, 29% were sophomores, 25% were juniors, and 13% were seniors. The mean age for the entire sample was 19.7, with men averaging 20.5 years of age, and women 19.1. Grade point averages for the entire sample ranged from 1.2 to 4.0, with a mean of 2.84. Considered

separately, men's and women's GPA's were 2.65 and 2.99, respectively. Of the 97 subjects who reported having chosen a college major, 37% indicated a business-related field (financing, management, marketing, accounting) and 27% reported an area of specialization within engineering. Majors reported by the remaining subjects covered a variety of areas: Psychology, English, Interior Design, Educations, Speech Pathology, Computer Sciences.

Instruments

All subjects completed the Work Values Inventory (WVI; Super, 1970). This 45-item instrument assesses 15 different values that have been found to affect motivation to work: altruism, esthetics, creativity, intellectual stimulation, achievement, independence, prestige, management, economic returns, security, surrounding, supervisory relations, associates, way of life, and variety. Super (1970) reports that significant differences have been identified between a number of occupational groups according to the pattern of their responses to these work value scales. Hendrix and Super (1968) report two-week test-retest reliabilities for individuals scale ranging from .74 to .88, with a median test-retest reliability of .80.

The WVI was used in determining the expected utility values for the occupations considered, and thus in the operationalization of the Expected Utility model (see below). It was also used for ordering/prioritizing the presentation of aspects (work values) in the operationalization of the sequential elimination (Elimination by Aspects, EBA) model.

Operationalization of the decision-making models

Model-free approach. To assess career choice when unguided by an explicit model, subjects were presented with a list of 18 occupations. These occupations had been selected based on a pilot study which assured that (a) the subjects were familiar with the occupations and (b) the occupations represented each of Holland's (1966) six work environments (3 in each). The order of presentation of the occupations was determined by random selection. Subjects were asked to rank these occupations in terms of desirabilty, with #1 assigned to the occupation they considered most desirable, and #18 to the occupation they would be least likely to choose. Subjects were also asked to indicate, on a scale from 1 to 9, how satisfied they were with their top choices, where 1=very dissatisfied, 9=very satisfied.

Sequential elimination approach (elimination by aspects, EBA). All subjects began with an indentical list of 18 occupations (the same occupations used in the Model-Free approach). They were instructed to select from that list the occupations which they considered acceptable in terms of X, where X represented some work value. The instrument designed to gather this information was individually tailored for each subject, with the work value first presented being the value ranking highest for the subject on his/her WVI. From the list of occupations selected by the subject as being acceptable in terms of the value, the subject was then to select those occupations that were accepatable in terms of Y, the work value raking second highest on the subject's WVI. This process continued through all 15 WVI

work values or until the subject had eliminated all but one (group) of the 18 occupations on the original list. At each of the 15 career-selection steps, subjects were asked to indicate their satisfaction with their choices using the same scale mentioned above.

Expected utility model. Subjects were provided with Super's (1970) definitions of the 15 work values. They were then asked to indicate on a scale from 0 - 10 the likelihood that each of the 18 occupations would satisfy each of the 15 work values (0 = extremely unlikely, 10 = extremely likely). The subject's rating on of the 15 work values constituted their "subjective probabilities" that the various work values would be met within each of the occupations. The expected utility values for each of the 18 occupations for each subject were calculated as the sum of the desirability of each of the 15 work values (assessd by the WVI) weighted by the subjective probabilities associated with the work values and the specific career.

Data analysis

A one-way ANOVA with repeated measures tested for significant differences between expected utility values of top career choices in the three choice models. Two-way ANOVAs with repeated measures on decision-making models were performed to test for significant differences between the mean expected utility values of top choices in the three decision-making models, given grade level and college major differences among the subjects.

Differences in the frequencies with which certain career

types (Realistic, Investigative, Artistic, Social, Enterprising, Conventional; Holland, 1966) were selected in the three choice situations were tested using Cochran Q tests. Kolmogorov-Smirnov two-sample tests were used to investigate differences in the patterns of choice in the three decision-making situations, (a) between male and female subjects, (b) among subjects with different college majors, and (c) among subjects at different grade levels. A Wilcoxan matched-pairs sign test and a Friedman test were used to explore, respectively, the possibility of significant differences in post-decisional satisfaction between the Sequential Elimination (EBA) model and Model-Free situation and within different stages of the sequential elimination process.

Results

Table 1 presents a summary of the means and standard deviations of the expected utility values for the subjects' top choices (choice #1) in the three decision-making models: Model-Free, Expected Utility, and Sequential Elimination.

Insert Table 1 about here

The ANOVA revealed significant differences among the mean values of the top choices in the three decision-making situations, $F(2, 194) = 39.19$, $p < .01$. Pursuant to the theoretical reasoning regarding the three decision-making models, it had been hypothesized that the mean value of the top choices in the Sequential Elimination situation would be significantly

smaller than the mean value of the top Expected Utility choices, and significantly larger than the mean expected utility values of the top choices in the Model-Free situation. As hypothesized, post hoc analyses revealed a significant difference between the expected utility values of top choices in the Expected Utility and Sequential Elimination situations, $t(97) = 7.46$, $p < .01$. The difference between the expected utility values of top choices in the Sequential Elimination and Model-Free situations were in the hypothesized direction and approached, but did not achieve, statistical significance, $t(97) = -1.61$, $p = .06$. These results indicate that careers selected via sequential elimination or without specification of a particular decision-making model were significantly lower in their expected utility values when compared to the "ideal" choice (i.e., that defined by the Expected Utility model).

When careers chosen in the Sequential Elimination model were compared to the ones in the Model-Free situation, the following results were found: Men in the study chose careers of similar quality; i.e., no significant difference was found in the expected utility values between the Model-Free and Sequential Elimination situation, $t(40) = -0.20$, $p = .85$. Women, on the other hand, made significantly better choices when guided by the Sequential Elimination model, than when choosing a career in the Model-Free situation, $t(56) = -1.83$, $p < .05$.

It had been hypothesized that subjects at different grade levels would make significantly different choices (in expected utility values) depending on the particular choice situation. No significant main effect for grade level was found, $F(3, 94) =$

0.138, p = .94; nor was the hypothesized interaction effect for grade level x choice situation found to be significant, $F(6, 188) = 1.15$, $p = .34$.

Each subject's major area of study had been classified according to Holland's (1972) typology. An analysis of variance performed on the mean expected utility values of top choices selected by subjects of different majors in the three decision-making situations indicated no significant interaction effect, $F(8, 176) = 1.61$, $p = .012$, nor was there a significant main effect for college major, $F(4, 88) = 0.802$, $p = .53$.

The frequencies with which top choices of Holland's (1966) six career types were selected in the different decision-making situations were analyzed using Cochran Q tests (Siegel, 1956). Choices made by 85 of the 101 subjects were analyzed. Excluded were subjects who terminated the Sequential Elimination process with multiple choices (n = 14) and two subjects with missing data.

Table 2 presents the frequency with which a subject's top career choice was of a particular career type. The results of the Cochran Q tests suggest significant differences in the frequencies with which Investigative [$Q(2) = 25.087$, $p < .01$], Social [$Q(2) = 9.125$, $p < .05$], and Enterprising [$Q(2) = 8.615$, $p < .05$] careers were selected in the three situations. Follow-up analyses (also Cochran Q tests) revealed no differences between the Model-Free and the Sequential Elimination situations in terms of the the types of careers subjects selected as top choices. Significant differences were found, however, when comparing

patterns of choices between the Expected Utility situation and the other two decision-making situations. A significantly larger number of subjects chose Investigative careers in the Expected Utility situation when compared to the other two. Additionally, significantly fewer people in the Expected Utility situation chose Social, Enterprising and Conventional careers when compared with the frequencies with which careers of these types were selected in the Model-Free and Sequential Elimination situations.

Insert Table 2 about here

The Kolmogorov-Smirnov two-sample tests (Siegel, 1956) performed on the distributions of choice-type for men and women in each of the three decision-making situations revealed a significant difference between the pattern of men's and women's top choices in the Expected Utility situation, $z = .866$, $p < .05$. No differences were found when the patterns of career choice of men and women were compared in the Model-Free and Sequential Elimination situations. Significantly different patterns of career choice were made by freshmen when compared with sophomores, and seniors across the three decision-making situations (all z's $= .866$, $p < .05$) and by freshmen when compared with juniors in the Model-Free and Expected Utility situations ($z = .866$, $p <. 05$ and $z = 1.155$, $p < .01$, respectively). No differences were found in the distributions of choices when comparing the other grade levels across the decision-making situations.

To compare subjects' post-decisional satisfaction with their

choices in the Model-Free and Sequential Elimination situations, a Wilcoxan matched-pairs sign test was performed. Ratings of post-decisional statisfaction were not taken in the Expected Utility situation for theoretical and practical reasons: Specifically, an "ideal" career (i.e., one "rationally" chosen via the Expected Utility model) is by definition the "most pleasing." In addition, given the design of the present study, subjects could not have rated their satisfaction with their choice, since they had not explictly chosen a career in the Expected Utility situation; instead it was "chosen" for them by their own work values ratings and their subjective probability ratings of each of the values being satisfied by each of the occupations. With respect to the comparison of the Model-Free and Sequential Elimination models, the test, which takes into consideration both the magnitude of the difference between the two groups and the direction of that difference, revealed no significant difference in the subjects' rated satisfaction with their top choices in the two decision-making situations, $z = -0.767$, $p = .44$

Insert Table 3 about here

Within the Sequential Elimination approach, it seemed intuitively appealing to hypothesize that the subjects' satisfaction with their choices in the Sequential Elimination model would increase as they approached the end of the elimination prcess, having eliminated an increasing number of the

careers they considered undesirable. A Friedman test was performed to test for differences in subjects' satisfaction with their choices at different stages in the Sequential Elimination process. Subjects' satisfaction was measured at four points within the process: (a) following the first step, (b) when they completed 1/3 of the process, (c) when they completed 1/2 the process, and (d) at the end of the process. No differences in satisfaction were found among the different points within the sequential elimination process, X (3, N = 83) = 2.035, p = .57

Discussion

The present study was undertaken to explore both theoretical and practical aspects of career decision making. Investigating the concept of "quality" of choice in the context of various models career decision making was a major purpose of the study. Although Expected Utility theory has been criticised with respect to its adequacy as a normative model of decision making, most decision theorists accept the Expected Utility model's prescriptions as leading to ideal choices (Elster, 1979; Pitz & Harren, 1980; Savage, 1954; Tversky, 1975). On the strength of the positions proffered by these theorists, "ideal career choice" in the present study was defined as the career selected in the Expected Utility situations, i.e., the career that yielded the highest expected utility value to the individual.

The results of this study indicated that the careers selected in the Sequential Elimination situations were significantly lower in their expected utility value than those in the Expected Utility situation. When careers chosen in the

Sequential Elimination model were compared to the ones in the Model-Free situation, the following results were found: Men in the study chose careers of similar quality (defined in terms of expected utility value) whether in the Model-Free or Sequential Elimination situation. Women, however, made significantly "better" choices when guided by the Sequential Elimination model than when choosing a career in the Model-Free situation.

Research on career self-efficacy may help to explain this finding. Specifically, Betz and Hackett (1981) found that college women's career choice behaviors were negatively affected by their self-perceptions as inefficacious in careers traditionally held by men (also see Branch & Lichtenberg, 1987). They hypothesized that women's self-observations and world-view generalizations (Krumboltz & Rude, 1981) may be conditioned by past discriminatory practices (Siegfried, Graham, Moore & Young, 1981) associated with society's traditionally narrow range of occupations that are "suitable for women" (Hackett & Betz, 1981). Consequently, it is possible that women's "spontaneous" (i.e., Model-Free) career choices may have deviated from their "ideal" due to narrow exposure to some careers that are considered desirable by all, which in turn may be due to a less secure or confident approach to career selection.

Indirect evidence to support this interpretation can be found in the present study. Overall, women were less satisfied than men with their choices in both the Sequential Elimination (mean satisfaction 6.47 and 7.49, respectively) and the Model-Free (mean satisfaction 6.27 and 7.05, respectively) situations. The increasing number of women in the work force, and the legal

issues mandating their upward mobility (Siegfried, et al., 1981) are likely to change society's expectations with respect to women and work. Meaningful changes, however, may be slow to occur. It is, therefore, likely that at this transition time in societal values, young women are at a disadvantage when asked to choose a career in a model-free (unstructured) situation. However, the Sequential Elimination model might have guided them away from the effects of traditional career decision practices by slowing down the choice process and forcing each individual to focus on her own pattern of work-value preferences.

An important aspect of this study had to do with the properties of the Sequential Elimination approach to career decision making. The model operationalized in this study was based on its original theoretical formulation (Gati, 1984; Tversky, 1972). It consisted of a 15-step process leading to a single (or multiple but equivalent) career choice. Seventy-eight percent of the subjects were able to select a single career in fewer steps; the minimum number of steps required was 4, and the median was 11. Eighty-eight percent of the subjects chose one career. Of the others, nine subjects selected two careers at the end of the process, two subjects chose three careers, and only one subject terminated the process having chosen four careers. In nine of these 12 multiple career choice cases, the ideal career (i.e., the one selected in the Expected Utility model) was among the choices made by that individual at the end of the sequential elimination process. Nevertheless, differences in the degree of satisfaction and expected utility values of the

Sequential Elimination model with respect to the "ideal" decision-making model (Expected Utility model) were noted.

When the degrees of similarity in frequencies with which specific career types (Holland, 1972) were chosen across the three decision-making situations, it was found that subjects tended to choose careers of the same type whether in the Sequential Elimination or in the Model-Free situation. Differences were found, however, between the Expected Utility situation and each of the other two in terms of types of top choices selected. The nature of the differences was identical in both cases: Subjects chose more Investigative and less Social, Enterprising and Conventional careers in the Expected Utility situation when compared with the Sequential Elimination and Model-Free situations. Significant sex differences were found in the types of choices subjects made in the Expected Utility situation, but no such differences were found in either of the other situations. Significant differences in the type of choices subjects made were found between freshmen-level subjects and each of the other grade levels in all but one comparison (freshmen-juniors) in the Sequential Elimination situation. Significant differences in type of choices were also found between subjects majoring in an Enterprising field when compared to subjects with majors in a Realistic field in both the Sequential Elimination and the Expected Utility models. Differences between Realistic and Investigative majors were indicated in the Sequential Elimination situation.

These differences, although intriguing, unfortunately shed little light on unique characteristics of the Sequential

Elimination model. Based on the results of this study, it seems that the Sequential Elimination situation was not distinct from either of the other situations in terms of its ability to capture differences in the types of choices made by the various sub-groups of subjects (grade level, college major). In most instances, similar patterns of systematic differences were identified by both the Sequential Elimination and Model-Free situations.

On the other hand, although the design of the present study precluded a direct evaluation of the ways career decisions are made when unguided by a prescribed model, consistent dissimilarities between both of the formal decision-making models and the Model-Free situation may assist in ruling out the possibility that the particular (dissimilar) model accounted for the process in the Model-Free situation. Specifically, the results of this study seem to lend some support to the hypothesis (Gati, 1984; Tversky, 1972) that decision makers do not naturally follow an Expected Utility-like decision-making process.

In the present study, significant differences were found consistently between the Model-Free situation and the Expected Utility model when quality and type of choice was evaluated. No differences in the types of careers selected were found when the Model-Free and the Sequential Elimination situations were compared. Additionally, with the exception of quality of women's top career choices, all other comparisons between the Sequential Elimination and the Model-Free situations failed to achieve statistical significance.

It is tempting to view these results as supportive of the descriptive adequacy of the Sequential Elimination model. At the same time, it is important to acknowledge that the results could also be attributable to the sensitivity of the Sequential Elimination model as operationally defined in this study. For example, subjects may have found the 15-step sequential elimination process displeasing (lengthy, monotonous), and thus underestimate their satisfaction with their career choice in that situation. Additionally, it is possible that the work values provided to the subjects in both the Expected Utility and Sequential Elimination situations may not have been values believed by the subjects to be influential or relevant in their career choices (Tinsley & Heesacker, 1984). To the extent that this was the case, it is possible that subjects might have found the process frustrating, thereby obscuring the sources of subject variability and rendering the Sequential Elimination process deficient in terms of its sensitivity to pick-up differences in the models. In this regard, the multiple career choices at the end of the Sequential Elimination process might be interpreted as an artifact of an irrelevant value list on which to base the elimination of career options.

Nevertheless, the Sequential Elimination process remains appealing, if only because it is relatively easy to apply, it involves no numerical computations, and it is easy to explain and defend in terms of the priority ordering of the work values considered (Gati, 1986; Tversky, 1972). Work values can be identified by standard inventories, by asking decision makers to imagine ideal careers, or by instructing subjects to "ask

questions that would produce the information most helpful in choosing an occupations" (Gati, 1984, p.18). The next step involves ranking those work values; and following that, occupational alternatives are identified and the Sequential Elimination process begins. This is largely the model that computer-assistent career guidance programs (e.g., SIGI) follow.

But from the point of view of "rationality," the Expected Utility model remains the standard against which other decision-making models are measured. With respect to the Sequential Elimination model, an uncritical application of the model may lead to poor decisions, since the model fails to ensure that the alternatives that are retained along the process are, in fact, superior to the one eliminated.

Thus, as simple and appealing as the Sequential Elimination process may seem to be, its successful application in the career decision-making field may be greatly assisted by a familiarity with the process, an awareness of its potential disadvantages, and the guidance of a competent counselor.

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Table 1

Means and standard deviations of the subjects' expected utility values for their top career choices in the three decision-making situations

	Decision-Making Situation					
	Expected Utility		Sequential Elimination		Model-Free	
	M	SD	M	SD	M	SD
Men	1531.60	242.61	1446.81	228.41	1447.95	256.72
Women	1532.93	289.40	1425.86	294.14	1384.66	309.73
Total	1532.38	269.64	1434.62	267.53	1410.98.	289.21

Table 2

Frequency of Career Type Choices in the Three Decision-Making Situations

Decision-Making Situation	Career Type[a]					
	R	I	A	S	E	C
Expected Utility	1	65	8	1	9	1
Sequential Elimination	0	46	6	9	17	7
Model-Free	0	38	9	10	21	7
Total	1	149	23	20	47	15

[a] R = Realistic, I = Investigative, A = Artistic, S = Social, E = Enterprising, C = Conventional (Holland, 1966)

Table 3

Post-Decisional Satisfaction Across the Sequential Elimination and Model-Free Situations

	Decision Situation			
	Sequential Elimination		Model-Free	
	M	SD	M	SD
Men	7.49	1.62	7.05	2.26
Women	6.47	2.00	6.27	2.40